

What is claimed is:

1 1. A multimedia device in a multimedia system, the multimedia device
2 comprising:
3 a backplane unit having a plurality of connectors provided thereon, each of
4 the connectors having a predetermined signal standard;
5 a main board unit, which is plugged into a connector of the backplane unit, for
6 processing an MPEG transport stream input from an extension board into a
7 predetermined signal form, and selecting an extension board; and
8 an extension board, which is attachable to any one of the connectors of the
9 backplane, excluding the connector into which the main board unit is plugged, for
10 transmitting an MPEG transport stream processed by an independent module to the
11 main board unit when selected by the main board unit.

12 2. A multimedia device in a multimedia system, the multimedia device
13 comprising:
14 a combination main board unit, wherein a backplane formed of a plurality of
15 connectors, each of the connectors having a predetermined signal standard, and a
16 main board for processing a multimedia input signal into a predetermined signal and
17 selecting an extension board are combined; and
18 an extension board, which is attachable to any one of the connectors of the
19 backplane, separately from the combination main board, for performing extended
20 functions, according to the main board's selection.

21 3. The multimedia device of either claim 1 or 2, wherein each connector
22 of the backplane has lines for:
23 a transmission signal for transmitting a control command of the main board to
24 the extension board;
25 an MPEG transport stream;
26 an analog audio/video signal; and
27 a selection signal for selecting an extension board.

1 4. The multimedia device of either claim 1 or 2, wherein the main board
2 or the combination main board comprises:
3 an MPEG TS decoder for decoding a receiving MPEG TS into an MPEG
4 video bit stream and an audio bit stream;
5 an MPEG video decoder for decoding the MPEG video bit stream generated
6 in the MPEG TS decoder into an analog video signal;
7 an audio decoder for decoding the audio bit stream generated in the MPEG
8 TS decoder into an analog audio signal; and
9 a control unit for selecting one of the extension boards, operating the MPEG
10 TS decoder, the audio decoder, and the MPEG video decoder if the MPEG TS data
11 is input from the extension board, and selectively outputting a multimedia signal.

1 5. The multimedia device of either claim 1 or 2, wherein the extension
2 board includes a module unit for transmitting a TS or an analog audio/video signal
3 to the backplane if the extension board is selected by a control from the main board
4 or the backplane.

1 6. The multimedia device of either claim 1 or 2, wherein the extension
2 board comprises:
3 a memory storing a program to execute in the main board or the backplane;
4 and
5 a module unit for transmitting the TS or analog audio/video signal to the
6 backplane or main board if the extension board is selected by a control from the
7 main board, according to the program stored in the memory.

1 7. The multimedia device of either claim 1 or 2, wherein the extension
2 board comprises:
3 a module unit for transmitting a TS or analog audio/video signal to the
4 backplane or the main board according to the control command;
5 an extended control unit for receiving a command from the main board if the
6 module unit is selected in the main board, controlling the module unit, and then
7 transmitting the result of executing the command to the main board; and

a memory for storing a program to be executed by the extended control unit.

8. The multimedia device of claim 7, wherein if an operation command from the main board is received, the extended control unit transmits menu items in the form of an HTML document to the main board to display the menu items on a screen, and if a menu item displayed is selected in the main board, executes a command corresponding to the selected menu item.

9. The multimedia device of any one of claims 5 through 7, wherein if the main board does not select the module unit, the module unit does not transmit a TS or an analog audio/video signal.

10. A method for extending functions of a multimedia device having a backplane, a main board, and extension boards plugged into the backplane, the method for extending functions comprising the steps of:

(a) determining whether or not the extension boards are plugged into the backplane, by sequentially scanning connectors plugged on the backplane;

(b) analyzing the characteristic of an extension board, if it is determined in the step (a) that the extension board is plugged into the backplane;

(c) performing functions according to the characteristics of the extension board analyzed in the step (b); and

(d) displaying a signal corresponding to the function of the extension board performed in the step (c), on a screen.

11. The method for extending functions of claim 10, wherein the step (c) further comprises the steps of:

the extension board receiving an operation command in the form of a menu, if an operation command is transmitted to the extension board; and

displaying the received menu on the screen by a web browser, and performing a command corresponding to the displayed menu.

12. A multimedia device in a multimedia system, the multimedia device comprising:
a backplane unit formed of a plurality of connectors, each of the connectors having a predetermined signal standard; and
a main board unit, which is plugged into a connector of the backplane unit, for processing an MPEG transport stream, which is input from a board of another connector, into a predetermined signal form, and selecting the board from which the MPEG transport stream was input.

13. The multimedia device of claim 12, wherein each connector of the backplane has lines for:
a transmission signal for transmitting a control command of the main board to the extension board;
an MPEG transport stream;
an analog audio/video signal; and
a selection signal for selecting an extension board.

14. A multimedia device having an extension board, which is detachably plugged into one of a plurality of connectors provided to a backplane and extends functions different from the functions of a main board, wherein the extension board comprises:
a module unit for driving a function extension module and generating a transport stream, and selectively transmitting the transport stream, which is generated in the function extension module, or an analog audio/video signal to the backplane according to a control command;
an extended control unit for receiving a control command from the main board if the module unit is selected in the main board, processing the module unit, and transmitting the result of executing the command to the main board; and
a connector unit for connecting each signal of the module unit and the extended control unit.

1 15. The multimedia device of claim 14, wherein if an operation command
2 from the main board is received, the extended control unit transmits menu items to
3 the main board to display the menu items on a screen, and if a menu item displayed
4 is selected in the main board, executes a command corresponding to the selected
5 menu item.